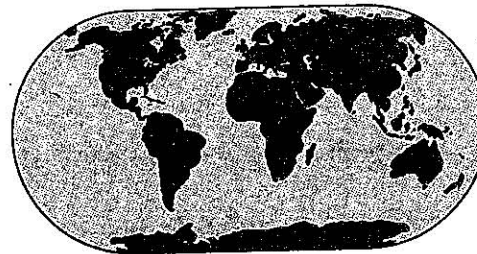


## Unit VII



# The Age of European Dominance

### Chapters

- 22 The Industrial Revolution (1700–1850)
- 23 Restoration, Romanticism, and Revolution (1815–1850)
- 24 Economic Expansion and Nationalism (1851–1876)
- 25 The Age of Imperialism (1875–1914)
- 26 The Turn of the Century (1865–1914)

**T**wo centuries between the early 1700's and the early 1900's brought a revolution in technology. A series of brilliant inventions led to new machines, sources of power, and forms of transportation. Together, these changes are known as the Industrial Revolution.

Political changes also characterized the nineteenth century. In the aftermath of the French Revolution, Europeans faced hard choices. Would absolutism, with its inequalities of wealth and power, endure? Or would new governments, based on reform and political rights, emerge?

As in earlier centuries, new ideas affected people's lives. What new trends and ideas appear on the time line on pages 504–505?

The Industrial Revolution brought a huge increase in trade on a global scale. The demand for resources and raw materials was matched by the need for markets to buy the goods produced. To meet these needs, European nations entered a race for the control of less developed lands. While competing abroad, these nations also launched a race for power in Europe.

This unit begins with the technological revolution of the 1700's and ends on the eve of World War I. As you read, note the impact of technology, the influence of ideas, such as nationalism and imperialism, the continuing shifts between continuity and change, and the worldwide effects of economic changes.

### TIME LINE

1800	1700's–1850 Industrial Revolution (Britain) 1800–1825 Revolutions in Latin America 1804 Haiti independent
	1815 Congress of Vienna
1820	
	1830 Revolution (France) 1832 Reform Act (Britain)
1840	
	1848 Revolutions in Europe 1848 Communist Manifesto published 1851 Napoleon III emperor (France) 1854 Commodore Perry to Japan (U.S.) 1857 Sepoy Mutiny (India) 1859 Origin of Species published
1860	
	1861–1865 Civil War (U.S.) 1861 Unification of Italy 1869 Suez Canal opened 1870 Franco-Prussian War 1871 Unification of Germany 1875 Third Republic (France)
1880	
	1880–1900 Conquest of Africa 1890 Kaiser dismisses Bismarck
	1898 Spanish-American War (U.S.)
1900	
	1900–1914 Uprisings in Balkans 1899–1902 Boer War (South Africa) 1904–1905 Russo-Japanese War 1908 Boxer Rebellion (China) 1909 Challenge to House of Lords (Britain) 1914 Panama Canal Opened

## Read and Understand

1. What factors contributed to the growth of industry in western Europe after 1750?
2. Why did the Industrial Revolution begin in Britain?
3. How did changes in transportation aid the growth of industry?
4. How did the Industrial Revolution change people's ways of life?

**VOCABULARY** Industrial Revolution, enclosure, crop rotation, factory, entrepreneur, industrialize, union

Historians use the term **Industrial Revolution** to describe the dramatic changes in technology that occurred in western Europe between 1700 and 1850. Beginning in Britain, new inventions changed the production of goods from handwork to manufacturing by machine. Improvements in production led to economic changes that in turn affected the way people lived. For thousands of years, the average person's way of life had changed very little. Suddenly, different ways of living and working took shape in just one or two generations.

### Many factors aided industrial growth.

The Industrial Revolution began in the early 1700's with improvements in the methods of farming. During this period, wealthy landowners in England began to buy up land to practice large-scale farming. Because they enclosed their fields with hedges or fences, this change is known as the **enclosure** movement. The new methods of farming included the use of **crop rotation** to keep fields fertile. Landowners also used new inventions such as Jethro Tull's seed drill to plant crops more efficiently. Finally, breeding farm animals selectively resulted in larger and healthier cattle, sheep, and pigs. The use of these new methods increased food production while requiring fewer workers.

A second important change of the 1700's was a rapid rise in population. Increased supplies of food provided people with better nutrition. Medical advances such as Edward Jenner's use of a vaccine for smallpox also enabled more people to survive. The result was a dramatic increase in population. Between 1750 and 1850 the population of Europe doubled. Rapid population growth encouraged the growth of industry by creating the need for more clothes and

food. It also provided the people needed as workers in industry.

Nowhere were conditions for the growth of industry more favorable than in Britain. Besides its improved methods of farming and rise in population, Britain had other advantages as well. The country was rich in three resources needed for industry—waterpower, coal, and iron. An island nation, with many fine harbors, Britain had more than 6,000 merchant ships that could carry imports and exports all over the world. Its merchants and bankers welcomed new opportunities to expand their business—and they had money to invest. Also, Britain enjoyed great political stability during the 1700's. No wars were fought on British soil, and the government looked with favor on new businesses that could aid economic growth. These advantages together enabled Britain to become the birthplace of the Industrial Revolution.

### Britain led in the rise of industry.

It was in the textile industry that the wave of innovation began. There new machines and manufacturing methods began to appear that revolutionized production. Previously, cloth had been made by hand by spinners and weavers working in their own homes. During the 1700's, the invention of machines such as James Hargreaves's spinning jenny and Edmund Cartwright's power loom made it possible to spin and weave cloth by machine. By enabling one person to do the work once done by a hundred, these machines greatly increased the quantity of goods produced.

The use of machines brought new approaches to production. Because the new machines were too large and costly for people to use at home, businesses placed them in large buildings called **factories**. The earliest factories, which depended on waterpower, were located on streams. By 1800, manufacturing plants dotted the English countryside wherever a fast-flowing stream provided a source of power. Workers now left their homes each day to tend machines in the factories.

In time, factory owners sought a source of power that would permit the location of factories near raw materials, seaports, or centers of population. The result was the steam engine, which was completed by the Scottish craftsman James Watt in 1865. The use of steam for power stimulated growth in the mining of iron and coal. Coal was needed to provide fuel for

steam engines, and iron was essential to the construction of the engine itself, as well as other heavy-duty machines. Similar expansion was seen in industry after industry, as new machines and factories were built to produce everything from rifles and shovels to shoes and tableware (graph, page 511).

The innovations that made the Industrial Revolution possible were aided by a new kind of businessman called **entrepreneur**. These businessmen put together the large sums of money needed to build and purchase the new machines. Many early entrepreneurs faced failure, but others were fabulously successful. Industry now joined trade as a major source of wealth for Britain.

### ***Industry grew and spread to new lands.***

The increasing output of manufacturing created the need for better transportation to move both raw materials and finished products. The result was a series of changes that revolutionized transportation. First to be built were canals that connected rivers in a network that provided cheap transportation. John McAdam, a Scottish engineer, developed better roads that were based on crushed rock and covered with a smooth surface.

The real breakthrough, however, was the railroad. Developed in the early 1800's by such inventors as Richard Trevithick and George Stephenson, the railroad locomotive was really a steam engine on wheels. It had the power to pull cars laden with passengers or freight along iron tracks. The first train line was built in northern England in 1821, linking the coal fields of Yorkshire with the city of Stockton on the North Sea. Within thirty years, there were nearly 6,100

miles of track in Britain alone. Countries such as France, Germany, and the United States also developed widespread rail networks.

The spread of railroads had far-reaching effects. They encouraged industrial growth by giving manufacturers a cheap, reliable method to move goods. Railroads also created millions of new jobs, not only with the railroads but also with mines and construction companies. From the mines came the iron needed for tracks and trains and the coal that powered the engines. Railroads aided progress in agriculture by enabling farmers to market produce more quickly.

As travel became more commonplace, people's attitudes about it changed. One reason was that travel now required less time. Trips that once took two weeks could now be completed in two days, and cities once considered distant were now just hours apart. Thus, country people who took jobs in cities knew that they could make regular visits home. Other people traveled for enjoyment, perhaps to the new seaside resorts that appeared.

Following the Napoleonic Wars, the Industrial Revolution spread from Britain to the continent. Several factors were important in enabling the nations of western Europe to **industrialize**, or develop industry. One was having the essential resources of iron and coal, as in Belgium and parts of Germany. Another factor was access to waterpower, as in the Po valley of northern Italy. The Industrial Revolution also had an enormous impact in the United States. Besides supplying most of the raw cotton for British mills, the United States itself became a major producer of textiles. Its abundant waterpower and vast deposits of iron and coal encouraged rapid industrial growth.

Britain, however, remained the workshop of the world, the economic superpower of the nineteenth century (map, page 518). In 1850, Britain produced more than 70 percent of Europe's cotton cloth, and more iron and coal than the rest of the world combined. The huge increase in manufactured goods led to a vast expansion in Britain's trade (graphs, pages 511 and 515). Merchant ships carried British-made goods to every corner of the world in an emerging global economy.

### ***Industry changed ways of life.***

The spread of industry in Britain and other countries transformed people's traditional ways of living. Most important of all was the change from rural to urban life. As people moved from the countryside to find work in factories and mines, new cities grew at a phenomenal rate. In less than a century, Manchester (City Tour, pages 519–520) grew from a small market town of 30,000 people to a city of more than 300,000 (graph, page 519). A similar change occurred in western Europe.

Major Inventions of the Industrial Revolution			
1721	seed drill	Jethro Tull	(Britain)
1733	flying shuttle	John Kay	(Britain)
1764	spinning jenny	James Hargreaves	(Britain)
1769	water-frame	Richard Arkwright	(Britain)
1769	steam engine	James Watt	(Scotland)
1779	spinning mule	Samuel Crompton	(Britain)
1785	power loom	Edmund Cartwright	(Britain)
1793	cotton gin	Eli Whitney	(U.S.)
1804	steam locomotive	Richard Trevithick	(Britain)



The rapid rise of cities created many new problems. Cities like Manchester and Birmingham grew so fast that little planning was done for housing, sanitation, or education for the thousands of people who poured in every week. Whole families lived in single rooms in filthy, degrading conditions. By contrast, merchants and factory owners lived in handsome homes in certain areas of the cities.

Conditions for workers in factories and mines were also terrible. Family life suffered as members were away from home for long hours. The average worker spent 14 hours a day, six days a week, on the job. Even then, the earnings of all members of the family were needed to provide the food and shelter basic to survival. Perhaps the most shocking example of poor working conditions was the use of child labor. Children as young as six or seven worked for long hours in factories and mines, earning what little they could to help keep themselves and their families alive.

Today, most governments would not tolerate such injustice. During the early 1800's, however, wealthy merchants and landowners dominated the government of Britain and other countries with rapid industrial growth. These people believed that the gap between rich and poor was a natural result of what they saw as progress. Thus, they favored a laissez-faire policy toward the bad conditions in which most people lived and worked. They believed that such conditions were not a matter for the government's concern.

Factory workers and the poor of course opposed laissez-faire policies. In Britain and the countries of western Europe, however, they had little real influence on politics. In Britain, for example, most members of Parliament came from rural areas, and even there only owners of large properties could vote (feature, page 522). Until the Reform Act of 1832, bustling cities like Manchester and Birmingham were not even represented in Parliament.

Not surprisingly, considerable tension existed between rich and poor. During the early 1800's, mob protests and riots were common in city after city in Britain, as working people struggled—usually unsuccessfully—for improved living and working conditions.

Over time, workers found other ways to press for reforms. Although they still could not vote, workers in a trade often joined together in groups called unions to bargain for higher wages and better working conditions. If employers were unwilling to make concessions, unions at times used the threat of strikes to force the issue. Unskilled workers lacked such means to gain concessions.

Although tension between rich and poor remained a major problem throughout the 1800's, the Industrial

Revolution benefited more than just wealthy merchants and landowners. To people driven from the land by enclosures, it provided jobs and a means to survive. In time, a larger and stronger middle class began to emerge in the new industrial cities. It included skilled workers such as toolmakers and printers as well as managers in factories and mines. As members of the middle class gained a voice in politics, they supported policies for reform. Property qualifications were gradually lowered, and the government began to correct some of the worst social problems. By 1850, conditions for workers in most of Europe were gradually improving.

## Chapter Review

**Define** Industrial Revolution, enclosure, crop rotation, factory, entrepreneur, industrialize, union

**Identify** Jethro Tull, James Hargreaves, Edmund Cartwright, James Watt, Richard Trevithick, George Stephenson

### Answer

1. (a) What changes took place in the agricultural revolution of the early 1700's? (b) What changes occurred in population?
2. (a) Why did the Industrial Revolution begin in Britain? (b) How did the Industrial Revolution change production and trade?
3. (a) How did the spread of railroads affect the growth of industry? (b) The way people lived?

### Critical Thinking

4. (a) What changes in society resulted from the Industrial Revolution? (b) How were these changes reflected in government?

## Connecting Past and Present

The Industrial Revolution did not occur suddenly and over a brief period of time. It resulted from a series of inventions that together changed production and people's ways of life. The Industrial Revolution also occurred at different times in different parts of the world. In the 1800's, it affected mainly Britain, western Europe, the United States, and Japan. In the early 1900's, it spread to the Soviet Union, Canada, and Australia. Many countries, particularly in Latin America, the Middle East, Africa, and Asia, are experiencing it at present. Just as the early Industrial Revolution increased Britain's trade, the spread of industry worldwide is having an important effect on world trade today.



## Read and Understand

1. What did the leaders of Europe hope to achieve when they met at the Congress of Vienna?
2. How did nationalism affect European politics and thought during the nineteenth century?
3. How did the countries of Latin America win their independence?
4. What were the causes and outcomes of the revolutions of 1848?

**VOCABULARY** conservative, liberal, radical, romanticism, peninsular, creole, mestizo, caudillo

Torn apart by the Napoleonic Wars, the nations of Europe in 1815 wanted peace. They believed that restoring the old order would bring stability in the years ahead. The new ideas brought by the French Revolution, however, leaned toward change. The spirit of independence led to revolutions in Latin America, while the spirit of nationalism led to the founding of Germany and Italy in Europe. Revolutions in Europe in 1848 would fail, but reforms that expanded democracy in time brought a new stability. Rising international tensions, however, became a threat to that stability.

## European leaders sought stability.

After Napoleon's final defeat in 1815, delegates from the major nations of Europe met in Vienna to deal with the aftermath. Dominating the Congress of Vienna were five nations whose armies and influence were so strong that they were known as the "Great Powers." Four of the Great Powers—Great Britain, Austria, Prussia, and Russia—had been allied against Napoleon. The fifth nation—France—remained a Great Power although defeated in war (map, page 529).

The outstanding leader of the Congress of Vienna proved to be the Austrian foreign minister, Prince Klemens von Metternich. He represented the views of the four allies. Their goals were to prevent future French aggression, maintain peace by means of a balance of power, and restore the old order by returning former monarchs to their thrones.

Leaders of the four Great Powers were determined to restore the balance of power that had existed in Europe before Napoleon's campaign of conquest. This balance of power would occur if all the Great Powers were of near-equal strength. Through a series of treaties and agreements, these leaders achieved the balance

they sought. No ruler could again dominate Europe as had Napoleon.

Leaders at Vienna also sought to prevent the spread of democratic ideas. They believed that monarchy was the best form of government, with power belonging either to the monarch or to a small, wealthy elite. Nonetheless, the French Revolution, with its ideals of democracy and equality, had stirred the hearts of millions of people living under the rule of absolute monarchs. Across the Atlantic, the infant United States of America provided a clear alternative to government by kings and princes. Fearing change, Great Power leaders sought to contain it.

To keep France from seeking revenge, other powers made few serious demands on that defeated nation. In turn, France accepted the idea of a balance of power, partly because that arrangement recognized France as one of the Great Powers. All five Great Powers agreed that former rulers who had been deposed by Napoleon should be restored. In France, Louis XVIII, the brother of Louis XVI, returned as king.

Although leaders at the Congress of Vienna sought to restore the old order, change was all around them. The years after the Congress of Vienna brought new groups into politics. Many of these groups opposed the old order and continued to work for change. The main political groups thus were marked by their attitudes toward change.

Leaders at the Congress of Vienna viewed themselves as **conservatives** because they wanted to conserve, or restore, the old order. They opposed political change. Groups who favored moderate change, such as giving the vote to all citizens who owned a certain amount of property, were called **liberals**. Groups that favored more drastic changes, such as allowing all male citizens to vote, were known as **radicals**. With growing popular support, liberals and radicals would press for political changes throughout the rest of the century.

## New ideals affected politics and art.

A new political force that arose during the nineteenth century was nationalism. It was based on the belief that people with a common language and culture should be ruled by a government drawn from the same national group. Ever since nation-states had emerged in western Europe, people in those countries had developed a sense of loyalty to their state.

Modern nationalism was born with the French Revolution, out of the loyalty of the French people to their country and their opposition to foreign powers. The idea spread with foreign resistance to Napoleon's rule. In Europe in 1815, however, many political units were not true nation-states. The Austrian empire, for example, included more than a dozen different national groups. Most Poles lived under Russian rule, and Greeks were ruled by the Ottoman empire. As nationalism spread among subject peoples, it became a force for change. Often, it was strongest among liberals and radicals who were already seeking political power.

The first new nation to win its freedom was Greece. That country had been part of the Ottoman empire for centuries and had long hoped for its freedom. The people of Greece finally revolted in 1821. With military support from several of the Great Powers, Greece won full independence in 1830.

Strong feelings of nationalism also developed in what are now the nations of Italy and Germany. Neither existed as a political unit in 1815. Instead, each was split up into many feudal-like states, both large and small. Although the Great Powers had supported Greek nationalism against the Ottoman empire, they considered it a threat to stability in their own lands.

In Italy the dominant power was Austria, which controlled large areas in the north. In 1831, a young Italian patriot named Mazzini organized a nationalist group called Young Italy. Metternich, now the chief adviser to the Austrian emperor, succeeded in suppressing Young Italy and its leader. The people of Italy were not yet ready to take a united stand for independence.

The situation in Germany was more complicated. That area was divided into 39 separate states. The Congress of Vienna had set up a loose organization, the German Confederation, as a step toward unity. Along with many lesser states, the Confederation included the powerful state of Prussia and the vast Austrian empire that was ruled by the Hapsburgs. Several factors hindered possible unity in the Confederation. One was the old rivalry between Prussia and Austria. Another was the nationalist ambitions of subject peoples—Czechs, Serbs, Croats, Romanians, Italians, and others—in the Austrian empire. Although Metternich succeeded in repressing nationalist movements at the time, patriot groups continued to press for change.

Another new idea with wide appeal in the early nineteenth century was **romanticism**. It combined a focus on emotions, nature, and the individual with nostalgia for the past. In part, romanticism was a reaction against the Enlightenment's focus on reason. It found expression through music, painting, and

literature (illustrations, page 534). Its celebration of folkways and heroes fueled the spread of nationalism.

## ***Latin America won independence.***

Nationalism also became a powerful force for change in the Western Hemisphere. Just as the United States had won its independence from Britain in 1781, similar wars for national freedom were fought in Latin America between 1800 and 1825 (map, page 538). The term *Latin America* is used to describe those areas south of the United States where languages directly based on Latin—Spanish, Portuguese, and French—are spoken. Before 1800, most of Latin America was ruled by Spain. The success of the American and French revolutions, however, along with the Enlightenment belief in self-government, stirred the desire for independence among the people of Latin America.

Conditions in Latin America differed from those in the United States. Most important was that colonial society in Latin America was sharply divided into classes based on birth. These included the **peninsulars**, or European-born; the **creoles**, whose ancestors came from Europe; and the common people, including those of Native American, African, or mixed ancestry. Many Africans were slaves, and Native Americans, though legally free, were often treated no better than slaves.

The first Latin American nation to gain its freedom was the French colony of Haiti on the Caribbean island of Hispaniola (map, page 538). There an ex-slave and skilled military leader named Toussaint L'Ouverture led a successful rebellion. Despite his capture by treachery and his death in prison, Haiti gained its independence in 1804.

In the Spanish colonies of Latin America, creoles led the struggle for independence. They had earlier sought a greater voice in government and trade. However, it was Napoleon's conquest of Spain in 1808 that broke the ties of colonial loyalty. Active rebellion began in 1810.

Two great military leaders were largely responsible for the success of the Latin American revolutions. In the south, José San Martín of Argentina helped both his own country and Chile gain their freedom. Meanwhile, in the north the brilliant general Simón Bolívar, known as the Liberator, drove the Spaniards from Colombia and his native Venezuela. In Peru in 1824, he won a final victory at the Battle of Ayacucho.

Napoleon's conquests also led to independence in Brazil. His invasion of Portugal forced that country's royal family to seek refuge in Brazil for a time. In 1822, the Portuguese regent declared Brazil independent.

Independence did not establish equality in Latin American societies. The creole elite, which made up

only one fifth of the population, now controlled business and politics in most of the region. Only in Mexico did the Native Americans and **mestizos** (people of mixed Native American and European ancestry), led by Father Hidalgo and later by José María Morelos, wage the fight for independence. Although they achieved their goal in 1813, the creoles by 1820 had gained firm control.

Governments in other nations of Latin America also came under creole domination. Often, the leaders who gained control were military strongmen, or **caudillos**, who ruled as dictators. They ruthlessly suppressed democracy and liberal reform.

Although Latin American nations were independent, the danger of foreign conquest remained. To prevent the return of European control, the United States announced the Monroe Doctrine. This policy opposed a return to European colonization in Latin America. Britain favored a similar policy. New colonization did not occur. Britain and the United States, however, were able to expand their trade and gain other economic advantages in Latin America.

### ***Reform and revolution swept Europe.***

The old order restored by leaders at the Congress of Vienna lasted only briefly. Forces such as nationalism, the spread of industry, and people's desire for a voice in government soon led to change. In France, an unexpected revolt in 1830 ended conservative Bourbon rule. Liberal leaders turned to Louis Philippe, a member of royalty who was willing to accept reforms. The French Chamber of Deputies, elected by the middle and upper classes, shared power with the king.

In Great Britain, Parliament in 1832 passed a major Reform Bill. It gave full political rights to most men of the middle class, though still less than 20 percent of male citizens. The bill also provided for representation from new cities such as Manchester and Birmingham, while representation from the less populated countryside was reduced. Passage of the Reform Bill, which made the House of Commons more representative, was a great victory for the liberals. Although the working classes were still not represented and thus sought further reforms, the pattern for peaceful, orderly change was established.

By midcentury, the pressures for democratic reform had begun to build in central and western Europe. As in Britain, the Industrial Revolution on the continent had created huge new cities with filthy urban slums. While liberal leaders continued to seek political reform and improvement of urban conditions, many workers turned to radical leaders who promised change—if necessary, by violent means.

Such violence came in 1848, when revolutions swept through most of Europe. In central Europe,

nationalists staged rebellions for a variety of reasons. Patriots in Hungary sought to end Austrian rule. In the German states, rebels hoped for national unity. Virtually all these revolts failed, due to disagreements among the rebels and to the strong armies of conservative rulers. The year 1848, however, foreshadowed the sweeping changes that would come in the decades ahead.

In Paris, Louis Philippe was overthrown and a radical democratic government briefly took power. A national election chose as president Louis Napoleon Bonaparte, a nephew of Napoleon. Four years later, he dissolved the Chamber of Deputies and declared himself emperor. He held that position for 18 years.

### ***Chapter Review***

**Define** conservative, liberal, radical, romanticism, peninsular, creole, mestizo, caudillo

**Identify** Congress of Vienna, Klemens von Metternich, José San Martín, Simón Bolívar, Battle of Ayacucho, Father Hidalgo, José María Morelos, Reform Bill of 1832, Louis Philippe, Louis Napoleon

#### **Answer**

1. (a) What were Metternich's goals at the Congress of Vienna? (b) How did he implement them?
2. Why did conservatives consider nationalism a threat to political stability in Europe?
3. (a) How did Latin American nations gain their independence? (b) What limits on democracy continued to exist in Latin America?

#### **Critical Thinking**

4. Were European politics from 1815 to 1850 characterized more by continuity or by change? Why?

### ***Connecting Past and Present***

Metternich's belief that the balance of power would help to keep peace was reflected in international politics after World War II. For more than 40 years after the war, a balance existed between two superpowers, the United States and the Soviet Union. Each sought to ensure that its opponent did not gain an advantage in territory or arms.

Nineteenth-century nationalism and the desire for self-government and reform are reflected in the recent uprisings in Eastern Europe. Just as Austrian domination proved unacceptable, so did that of the Soviet Union. Autocratic or one-party rule within nations also failed in the face of people determined to live under governments that are limited in power and responsible to the people.



## Read and Understand

1. What factors led to the growth of a global economy during the late 1800's?
2. How did workers gain more political influence?
3. How did Italy and Germany become nations?
4. What changes enabled the United States to become a world power in the late 1800's?

**VOCABULARY** stock, corporation, emigration, socialism, proletariat, scientific socialism, communism, suffrage

By 1850, the spread of industry led to a great expansion of trade. Businesses bought raw materials and sold their goods in a worldwide market. Slowly, political reforms were giving workers more influence in government. Nationalism changed European politics with the rise of new nations in Italy and Germany. In the United States, westward expansion and the end of the Civil War brought a new nationalist spirit.

## Industrialism created a global economy.

The pace of industrial growth in western and central Europe quickened after 1850. The world output of coal and iron doubled in a decade, then doubled again. Making goods by machine resulted in the output of huge quantities of goods, called mass production. Between 1850 and 1870, the value of goods bought and sold in foreign trade more than tripled. World trade reached a level never before imagined (table and graph, page 550).

Improvements in transportation were an important factor in the growth of trade. Between 1850 and 1880 the length of the world's railroad track increased almost tenfold. Completion of the United States' transcontinental line in 1869 and Canada's in 1885 created economic links by land. At sea, sailing vessels faced competition from the faster and more reliable new steamships. The opening of the Suez Canal in 1869 linked the Mediterranean Sea to the Red Sea and Indian Ocean. It reduced the distance from Britain to India by 6,000 miles and the travel time by a month.

New technology also led to improvements in communications. The telegraph, developed by the American inventor Samuel F. B. Morse, transmitted messages by code over great distances. The next two decades saw the entire world linked by telegraph wires and undersea cables. By 1875, it was possible to

send a message from Paris to Tokyo in less than five minutes.

The rapid expansion of industry and trade directly affected business. Building railroads, ships, and telegraph systems required huge amounts of capital to pay for them. To raise money, businesses began to sell **stock**, or shares of ownership, in their companies. More than 20,000 people and several governments bought shares in the Suez Canal Company.

Entrepreneurs often organized their businesses as **corporations** under charters from the government. As corporations, they could raise large amounts of capital and carry out large-scale projects. Some corporations grew so large that they gained a monopoly, or control of an entire industry. The vast new business enterprises earned huge profits. Investment banks channeled those profits into new ventures around the world.

The growth of trade and the revolutions in industry, transportation, and communication brought countries around the world into closer contact. Industrialized nations imported raw materials and food, often from countries that were not industrialized. These countries in turn bought manufactured goods from the industrialized nations. The result was a global economy, with distant regions of the world increasingly interdependent.

In purely human terms as well, distant parts of the world came in closer contact. The movement of people from rural to urban areas and from continent to continent created a dramatic shift in population during the 1800's. Between 1850 and 1900, for example, more than 25 million Europeans chose **emigration**, the permanent movement from one country to another. They sought a better life in faraway lands such as the United States, Australia, and the countries of Latin America.

## Working people gained more influence.

The Industrial Revolution had brought hardship and suffering as well as economic progress. By 1850, however, many of the worst problems—such as child labor, dangerous working conditions, and poor urban sanitation—were slowly being corrected. The first reformers came mainly from the middle and upper classes. In time, however, intellectuals and workers themselves sought change.

Between 1830 and 1850, a number of intellectuals in Britain and France began to question the new economic system created by the Industrial Revolution. Why should a few people enjoy wealth and power while most people lived in poverty and misery? The ideas developed by these writers came to be known as **socialism**. Most of the early socialists, such as Robert Owen and Pierre Joseph Proudhon, believed that improving people's living and working conditions was not enough. What was needed, they said, was a new approach to the wealth produced by the Industrial Revolution. Proudhon, who emphasized the value of labor, pointed out that workers did not share in the ownership of factories. These socialists came to support the idea of state ownership of the means of production, such as factories and mines.

A later socialist, the German Karl Marx, held a more extreme view. He preached drastic change through violent revolution by the masses of the workers, or **proletariat**. "Workers of the world, unite!" wrote Marx. "You have nothing to lose but your chains." Marx believed that the proletariat would in time overthrow the owners of the means of production and establish a true socialist society. Marx's ideas became known as **scientific socialism**, or **communism**. Marx set forth his ideas in *The Communist Manifesto*, published in 1848 (Turning Point, pages 551–552).

Marx's writings were to have enormous impact in the twentieth century—actually, in countries that were not heavily industrialized. In his own time, however, his ideas had little influence. A major reason was that the conditions favorable to violent revolution did not arise. In most countries, democratic reforms and the growth of the middle class offset any interest in violent revolution.

Workers as well as intellectuals sought ways to bring about change. One approach was to organize unions to gain higher wages and better working conditions. By 1875, British trade unions had won the right to strike, although strikes remained illegal in many European countries. A more important factor in improving conditions for workers was the gradual extension of **suffrage**, the right to vote. Reform laws in Britain in 1867 and 1884 brought universal manhood suffrage, which Germany adopted in 1871.

Literature and the arts of the late 1800's reflected the concerns expressed by intellectuals and workers. Romanticism gave way to a new movement called **realism**, which focused on the everyday lives of ordinary people. Artists such as Daumier in France and writers such as Tolstoy in Russia and Dickens in Britain gave searching portrayals of their times.

### **Italy and Germany formed nations.**

The political quiet that followed the revolutions of 1848 was shattered by the nationalist ambitions of

Italy and Germany. To achieve their goals, leaders in those countries used a strategy of political realism, or **realpolitik**, that combined diplomacy with armed force.

**Italy** Unification came to Italy through the efforts of Count Camillo di Cavour, prime minister of the Kingdom of Sardinia. Sardinia was one of the larger states that together made up the region of Italy (map, page 529). Cavour was no romantic dreamer. He was a tough diplomat whose goal was to unite Italy. Through skillful diplomacy, Cavour in 1858 persuaded France to join Sardinia in a war against Austria, which opposed unification. The defeat of Austria let Sardinia take over most of northern Italy. In southern Italy and Sicily, the bold patriot-soldier Garibaldi led the movement for unification. Cavour completed the unification of Italy in 1861 (map, page 556). The new nation was to be a constitutional monarchy.

**Germany** The process of unifying Germany was similar to that in Italy. The leader of the movement for German unification was Otto von Bismarck, who became prime minister in 1862. Like Cavour, Bismarck wanted to unify his country and used **realpolitik** to do it. "The great questions of our day," Bismarck declared, "cannot be solved by speeches . . . but by blood and iron."

Since 1815, the 39 states of Germany—including Austria and Prussia—had been joined in a loose confederation (map, page 529). Austria and Prussia were rivals for power. Austria, however, was weakened by nationalist feeling among its subject peoples. Prussia, by contrast, was growing in power. The Prussian army was perhaps the best in Europe, and Bismarck used it to achieve his goal.

By a series of carefully planned wars, Bismarck expanded Prussian rule (map, page 558). The first war gained two provinces from Denmark. The next, against Austria, gained more land and forced Austria out of the German confederation. These victories boosted national pride and enabled Prussia to annex most of northern Germany.

Bismarck next provoked war with France. A swift, powerful military campaign—including the siege of Paris—left France crushed. In addition, France had to pay Germany the huge sum of 5 billion francs and give up Alsace and Lorraine. Those provinces contained France's richest coal and iron mines. In 1871, Bismarck achieved his goal. King William I of Prussia was crowned emperor of Germany.

Defeat in the Franco-Prussian War left France devastated. Not until 1875 did a new national government, the Third Republic, emerge. Even then, competition among political parties hindered progress. The people of France, however, were united in their hatred of Germany and their determination to regain Alsace and Lorraine.

The rise of Italy and Germany and the weakening of Austria and France destroyed the balance of power that Metternich had created in 1815. A new Great Power existed whose military strength dominated the continent. Only Britain could equal Germany in power. As industrial leaders, both nations were capable of waging wars more destructive than ever before.

### **The United States spread westward.**

Across the Atlantic, the United States was also emerging as a strong nation. In the hundred years between 1776 and 1876, it grew to reach from coast to coast. The acquisition of territory occurred in five major steps (map, page 562). These included the Louisiana Purchase in 1803, Florida in 1819, Texas in 1845, Oregon in 1846, and the Mexican Cession in 1848. This expansion greatly strengthened the nation in terms of land and resources, access to trade, and opportunities for development. It also added new groups of people to the nation.

During the 1840's, the spread of settlement raised a major question. Should slavery, which had existed in the country since the 1600's, be allowed to spread into the new territories? North and South differed over the answer. The economy of the North included farms and industry, which relied upon free workers. The economy of the South, however, was based on crops such as rice, sugar, and cotton that required intensive labor. Southern plantations relied upon slaves as workers.

The economic differences between North and South were reflected in political differences. Many people in the North considered slavery wrong. They thus wanted to limit the spread of slavery. Most people in the South defended slavery as protected by law and essential to their way of life. As Southerners moved westward, they wanted to extend slavery into new territories.

The presidential election of 1860 brought into office Abraham Lincoln, who opposed the spread of slavery. Shortly, 11 states in the South seceded, or withdrew, from the Union, and established their own nation, the Confederate States of America. Conflict over this action led to the Civil War, which lasted from 1861 to 1865. The war was devastating in terms of destruction in the South and casualties on both sides. In the end, the Union was preserved. Passage of the Thirteenth Amendment abolished slavery in the United States. The Fourteenth Amendment granted citizenship and the Fifteenth, suffrage to African Americans.

Industry, which had grown rapidly during war, continued to expand after the war. By 1870, the United States had more miles of railroad track and

more power from steam engines than any other country in the world. Finally unified, the nation was becoming a new world power.

### **Chapter Review**

**Define** stock, corporation, emigration, socialism, proletariat, scientific socialism, communism, suffrage, realpolitik

**Identify** Suez Canal, Karl Marx, Charles Dickens, Camillo di Cavour, Otto von Bismarck

#### **Answer**

1. What factors contributed to the rise of a global economy after 1850?
2. How did the unification of Italy and Germany change the European balance of power?
3. What conditions and changes helped the United States to become a Great Power?

#### **Critical Thinking**

4. (a) What changes enabled workers to gain political influence? (b) Why do you think the revolution predicted by Marx did not occur in the late 1800's?

### **Connecting Past and Present**

The idea of nationalism had a powerful impact on the history of the nineteenth century. In Europe, it led to the unification of Italy and Germany. As Denmark, Austria, and France discovered, however, nationalism in one country could become a threat to others.

In the twentieth century, German nationalism—combined with militarism—became a factor in the outbreak of two world wars. At the end of World War II, the nation Bismarck had created was divided. West Germany was linked with France, Britain, and the United States, while East Germany was dominated by the Soviet Union. Leaders in 1945, as in 1815, were seeking to establish a balance of power to preserve peace.

At the end of the 1980's, however, the situation of a divided Germany suddenly changed. In November 1989, as Eastern European countries emerged from Soviet domination, a new government in East Germany opened its border with West Germany. At once, millions of Germans traveled between the two "countries" as families and friends were reunited. The weakening of communism in the Soviet Union and Eastern Europe opened the way to German reunification in October 1990.



## The Age of Imperialism

### Read and Understand

1. Why did European nations compete for overseas empires during the late nineteenth century?
2. How did imperialists gain control of Africa?
3. How did the British come to dominate South Asia?
4. How did European imperialism affect China?
5. How did Japan react to European imperialism?
6. How did imperialism develop in the Western Hemisphere?

**VOCABULARY** imperialism, sepoy, sphere of influence, intervention

The nations of western Europe, aided by their superior technology, sought in the late nineteenth century to gain large empires overseas. By 1900, these nations controlled nearly all of Africa, together with South and Southeast Asia. In China and Latin America, Europeans dominated business, industry, and trade. Only Japan, which adopted the new technology, avoided European domination. Both Japan and the United States sought to gain lands overseas and extend their influence.

### Nations competed for overseas empires.

Western European conquest of lands overseas had led to colonization and settlement. In the late 1800's, millions of emigrants sought homes in those lands. People of European descent made up most of the population in the United States, Canada, Australia, and many Latin American nations.

After 1850, a new kind of European expansion began. Except for the countries noted, this new phase was not marked by widespread settlement. Instead, its objective was to control territories for economic reasons and prestige. This policy of conquering and ruling other lands is called **imperialism**. The late nineteenth century is often called "the age of imperialism," when nations such as Britain, France, Germany, Japan, and the United States competed for empires.

Britain was the leading imperialist power. Until the late 1800's, it dominated world trade. As other nations became industrialized, however, that situation changed. New industrial powers such as Germany and the United States sought colonies and trade for economic reasons. Others, such as France and Italy, were more concerned with national prestige.

These nations did not question their right to take over other lands and peoples. They viewed their

industrial might as progress, and they believed that they were bringing that progress to other peoples. They believed that their advances in technology showed the superiority of European civilization. Such beliefs, together with tales of adventure in distant places, glorified imperialism and gave it mass appeal.

### Imperialists divided Africa.

Nowhere was the competition for colonies greater than in Africa. Europeans had long kept ties with North Africa across the Mediterranean. Since the late 1400's, they had also maintained trading posts at the few harbors along the coasts. Some of these posts were active in the slave trade; others supplied vessels sailing to and from India and Southeast Asia. The vast interior of the continent, however, remained unknown.

Between 1800 and 1875, Europeans carried on a long exploration of the interior. Legend slowly gave way to fact as explorers from many countries determined the main geographic features, waterways, and resources. Explorers also brought information about the peoples of interior Africa. They discovered that the continent's population was divided into more than 700 different ethnic groups, each with its own language and culture. Most people lived in communities based on ties of kinship and tradition. A few powerful states ruled over neighboring areas as empires. Networks of trade had provided some contact with Europeans and Arabs. Nonetheless, Africans had no way to foresee their conquest by outside forces.

Between 1875 and 1900, European nations scrambled for control of areas in Africa (maps, page 573. For a map of Africa today, see page 787.). First was Belgium, whose land claim in the Congo River valley became known as the Belgian Congo. This colony in time provided a treasure in copper, gold, diamonds, and other resources. France also gained lands along the Congo River, as well as in North Africa and the west-central interior. British influence or control extended to Egypt, the Sudan, parts of East and West Africa, interior lands in southern Africa, and Dutch lands in southern Africa. Germany, Italy, Portugal, and Spain also acquired colonies.

African resistance to European conquest varied. Armed with only primitive weapons, Africans were outgunned by the Europeans. One exception was the Mandingo empire in West Africa. Samori Touré, the ruler, had obtained guns through trade and also had

his own weapons factory. He thus was able to hold out against French forces for six years. In some colonies, foreign control was imposed through local rulers. In others, conflict among local groups led to acceptance of foreign control. By 1900, only two African countries, Ethiopia and Liberia, remained independent.

In most colonies, less than 1 percent of the population was European. In several colonies, such as Rhodesia and British East Africa, however, the pleasant highland climate drew permanent European settlers. By controlling government, business, and the army, Europeans in all colonies provided the system for ruling. Africans had little or no say in that system.

European rule led in time to the development of resources and raw materials for trade. The need for workers led to the use of forced labor by Africans in mines and on plantations. Africans also had to pay taxes for the government and for improvements such as roads and railroads.

The main area of large-scale European settlement was South Africa. Dutch immigrants called Boers (from the Dutch word for *farmer*) had settled there during the 1600's. Britain gained control of the area around the Cape of Good Hope in 1806. To avoid British rule, many Dutch settlers migrated farther inland. There, they faced years of conflict with the powerful Zulu empire.

After a long and uneasy truce between the Dutch and British, tensions rose after the discovery of gold and diamonds in the late 1800's. From 1899 to 1902, Dutch and British fought the Boer War for control of the region and its rich resources. By the terms of peace, Britain kept its sovereignty but granted liberal terms to the Dutch. In 1910, the four Cape provinces became a self-governing dominion.

Self-government for South Africans did not include the African people, who made up 75 percent of the population. In their own homeland, they were not considered citizens and thus had no representation or political rights. Instead, they lived in conditions little better than slavery.

### **The British dominated South Asia.**

While European powers competed for land in Africa, Britain alone dominated South Asia (map, page 579). That area includes the modern countries of India, Pakistan, Bangladesh, Sri Lanka, and Burma (map, page 773). By 1900, more than 300 million people in this vast region lived under British rule.

British rule in India came about more by accident than design. The collapse of the Mughal dynasty during the 1700's left the country divided into hundreds of states ruled by local princes called maharajahs. The defeat of France in the 'Seven Years' War gave Britain's East India Company a chance to extend its trade. It also came to rule large sections of the country.

A new phase of British control began in 1857. That year, a rebellion among the *sepoys*—Indian soldiers employed by the East India Company—threatened British control. The next year, the British government took over the rule of the East India Company's lands. The Raj, as those lands were called, included about two thirds of the country and all major cities. Treaties with the maharajahs brought other states under indirect rule. Britain carried out many developments—roads, bridges, canals, railroads, and irrigation systems—to increase trade. Britain's proclaiming Queen Victoria empress of India in 1857 showed India's importance to the empire. One British prime minister called India "the brightest jewel in Her Majesty's crown."

In time, some Indian leaders questioned the changes being made by Britain. Most of the profits from British businesses went back to London. While most development was paid for by taxes upon the Indian people, Indians had little or no voice in business or government. Slowly, a spirit of nationalism began to develop among educated Indians, who came to oppose British rule.

In Southeast Asia, a number of European nations became involved. The Dutch continued to rule the islands of the East Indies. France now took over Indochina (the modern countries of Vietnam, Laos, and Cambodia), while Britain acquired the Malay Peninsula and Singapore. In 1898, the United States captured the Philippines from Spain.

### **Imperialism threatened China.**

Gaining a foothold in China was a slow process for European nations. Although weak politically, China was less open to conquest. Emperors of the Ch'ing dynasty continued to rule the country much as they had since 1644. Because China was self-sufficient, it had little interest in trade.

European nations used a variety of strategies to open China to trade. One was to set up an illegal trade in opium, which British merchants smuggled into China. Protests by China led to the Opium War with Britain in 1839. China's humiliating defeat signaled the nation's weakness and the opportunity for foreign nations to gain entrance (map, page 582).

In time, Chinese leaders were forced to accept European dominance. Through a series of unequal treaties, nations such as Britain and Germany set up **spheres of influence**. Each country gained a region in which it could develop its own business interests. Europeans living there were subject only to the laws of their own country.

China slowly sank into turmoil. During the 1850's, public anger over widespread hunger and government inaction led to a civil war, the Taiping Rebellion, in which more than 20 million people perished. With Britain's help, the emperor maintained his power.

Some Chinese officials wanted their country to modernize. However, Britain and other European powers continued to support the existing system in order to keep a free hand in business and trade. Foreign nations also began to acquire pieces of Chinese territory. The United States, which opposed the dividing up of China, in 1898 declared the Open Door policy, which sought to protect China's interests.

A final internal uprising, the Boxer Rebellion, was crushed by foreign troops in 1908. Nonetheless, opposition to European control and imperial rule continued. More Chinese began to hope for new leaders and a strong national government.

### ***Japan built a modern nation.***

Japan, unlike China, strongly resisted European imperialism. During the 1700's, Japan had been even more isolated than China from Western influence. That isolation ended with the arrival of Commodore Matthew Perry and a United States fleet in 1854. Japan reluctantly signed a treaty with the United States, the first of a number of unequal treaties. At the same time, it resolved to resist foreign control. Under the new Meiji regime, leaders planned the modernization of Japan.

What followed was an intense program of industrial development. Japanese leaders traveled widely during the 1870's, studying every aspect of Western culture and borrowing the latest technology for use at home. In just thirty years, with government support, Japan became an industrial giant. The country also developed its military power, modeling its army on that of Germany and its navy on that of Britain. In 1899, Japan brought an end to the unequal treaties.

As a new imperialist power, Japan sought spheres of influence and territories in Asia. Quarrels with Russia over control of Korea and Manchuria led to the Russo-Japanese War of 1904–1905. A stunning victory over Russia enabled Japan to take over Korea and to dominate Manchuria. Japan had become a Great Power.

### ***Imperialism reached the Western Hemisphere.***

Imperialism in Latin America differed from that in Africa and Asia by being indirect. Although politically independent, Latin American nations were weak and their resources were undeveloped. Thus, an opportunity existed for Britain and the United States to develop business interests there. Through investment, the two nations came to control key mines, railroads, and factories.

United States involvement in Latin America increased as a result of the Spanish-American War in

1898. The United States entered the war to help Cuba and Puerto Rico gain independence from Spain. The United States also had major business interests in those islands. Spain's defeat led to freedom for Cuba, although Cuba's economy was closely tied to that of the United States. Puerto Rico and the Philippines in the Pacific became possessions of the United States.

In 1904, President Theodore Roosevelt extended the Monroe Doctrine by asserting, in the Roosevelt Corollary, the United States right of **intervention**, or interference, in Latin America to preserve order. United States interest in the Caribbean increased with the Panama Canal. Acquisition of Hawaii and the Philippines reflected growing United States interest in the Pacific and its status as a world power.

## ***Chapter Review***

**Define** imperialism, sepy, sphere of influence, intervention

**Identify** Boers, East India Company, Raj, Taiping Rebellion, Boxer Rebellion, Russo-Japanese War, Spanish-American War, Roosevelt Corollary, Panama Canal

### **Answer**

1. Why were European nations eager to gain colonies after 1850?
2. What countries gained the most territory in Africa?
3. (a) By what stages did Britain take over India? (b) What were the causes of Indian nationalism?
4. Compare the Chinese and Japanese responses to Western imperialism.

### **Critical Thinking**

5. To what extent did the balance of power become a global matter between 1875 and 1914? Why?

## ***Connecting Past and Present***

Between 1870 and 1914, new technology, combined with imperialism, enabled industrialized nations to extend their influence and culture around the world. One example of cultural influence was the spread of Britain's game of soccer as a worldwide sport. The World Cup competition, held every four years, is a by-product of the age of imperialism.

Today technology too has spread around the globe. One-time possessions such as India and Korea now use that technology to compete with their former rulers. The rise of new industrial powers is an important economic factor that will affect your life in the years ahead.



**The Turn of the Century****Read and Understand**

1. What inventions transformed people's ways of living between 1865 and 1914?
2. How did scientists contribute to improving the quality of life during this period?
3. What changes were women seeking in the late nineteenth century?
4. How did arts and entertainment reflect changes in industry and technology?
5. What new political tensions did Europe face?

**VOCABULARY** interchangeable parts, assembly line, impressionism, mass culture, social insurance, home rule, pogrom

The Industrial Revolution entered a new stage between 1865 and 1914. During that era, a host of new inventions and scientific discoveries transformed everyday life. The movement for democracy entered a new stage as women sought greater rights and freedom. The arts and entertainment reflected changes in both technology and society. Overshadowing this era were rising nationalist and imperialist tensions that posed a new threat to European stability.

**Inventions changed ways of life.**

The pace of industrial development, which had been very rapid in the early 1800's, quickened again between 1865 and 1914 but was concentrated in only a few countries. By 1913, three economic powers—Britain, Germany and the United States—produced most of the world's manufactured goods.

Iron was one of the basic resources of the Industrial Revolution. That metal, however, was brittle, heavy to handle, and unable to hold a sharp edge. Steel, made from pure iron mixed with a small amount of carbon, was better in many ways but difficult to produce. The problem of making steel was solved in the 1850's by Britain's Henry Bessemer through the use of a blast furnace. Large quantities of steel became available.

A second breakthrough was the development of electricity. The first industrial dynamo—a machine that uses another power source to generate large electric currents—was built in Belgium in 1872. The dynamo made it possible to transmit electric power over distance by wires. Electricity opened the door to a host of other inventions.

The American inventor Thomas Edison made extensive use of the new power source. After inventing

the electric light bulb in 1879, Edison went on to develop in New York the first electric streetlights. Altogether, Edison was responsible for more than a thousand inventions, including the phonograph and the motion-picture camera. Other inventors also helped to transform everyday life. The American inventor Alexander Graham Bell patented the first telephone in 1876. The Italian inventor Guglielmo Marconi produced the first wireless telegraph, or radio, in 1895.

Few people in the 1880's could have imagined the impact of the new gasoline engine. Applied to a bicycle, it became a motorcycle. The greatest and most immediate impact of the gasoline engine, however, came with the automobile. Automobiles remained a luxury until American businessman Henry Ford developed ways to make cars quickly and inexpensively. One new method was to use standardized, or **interchangeable parts**. Another was to use an **assembly line**, based on a large conveyor belt, where workers could put cars together as the line moved along.

The gasoline engine also became of use with the airplane. In the hands of two American brothers, Wilbur and Orville Wright, it powered the first flight in 1903.

**Science presented new ideas.**

Rapid increases in scientific knowledge also brought changes. In medicine, doctors such as Scotland's Joseph Lister and France's Louis Pasteur made major discoveries that led to improvements in public health. Lister established the link between sanitation and disease, enabling more hospital patients to survive. Pasteur found that heat killed harmful bacteria.

Perhaps the most controversial new scientific idea was the work of the British biologist Charles Darwin. Through his study and research, Darwin developed the theory of evolution. In 1859, he published a book titled *The Origin of Species by Means of Natural Selection*. Its three main premises were these:

1. Because more members of a species are born than can survive, all living things are involved in a struggle for existence.
2. Variations within species mean that no two individuals are exactly alike.
3. The variants with some advantage in current conditions are more likely to survive and reproduce (a process he called natural selection).

Darwin's ideas differed from many that were widely accepted at the time, particularly those concerning the Bible's account of creation. Although most scientists accepted Darwin's theories, these remained controversial.

Darwin had introduced his theories in relation to biology. Other thinkers, however, sought to apply his ideas to economics and politics. They incorrectly used his concept of natural selection to justify differences in wealth, economic competition, nationalism, and imperialism. This use of Darwin's ideas is known as social Darwinism.

Scientists in chemistry and physics also added major new discoveries. Their work included the study of genetic inheritance, the elements of matter, and atomic physics. This new knowledge laid the groundwork for further scientific advances in the twentieth century (chart, page 599).

### ***Women sought rights and freedoms.***

One of the foremost scientists of this era was Marie Curie, a Polish chemist who lived and worked with her husband Pierre Curie in Paris. Her achievements were a symbol of the dramatic changes in women's roles. Her exclusion from the French Academy of Science, however, showed the limits women still faced at the end of the century.

The effects of the Industrial Revolution in terms of women's lives were mixed. Factory work brought higher wages than working at home. On the other hand, women factory workers earned far less than men, and their opportunities were limited. During most of the nineteenth century, few fields were open to women. These included mainly work as servants and factory workers and—for educated women—work as teachers and nurses. By 1900, women had begun to enter new fields such as medicine and to work as shop clerks, office help, and telephone operators. At the same time, the number of women working in factories declined.

A continuing problem for women was their lack of legal and political rights. Women had no right to their own earnings or property. They could not make contracts and often could not become guardians of their own children. Because they were denied the right to vote or to hold office, their means for changing the system were limited.

One of the early movements for women's rights began in the United States with a meeting at Seneca Falls, New York, in 1848. International cooperation among women's groups led in 1888 to the founding of the International Council for Women. The major effort for women's rights focused on suffrage, the right to vote. Despite protests and demonstrations by thousands of women, including the militant Emmeline Pankhurst in Britain, the suffrage movement

made slow progress. Several countries—including New Zealand, Australia, Finland, and Norway—granted voting rights to women before World War I. Britain, Germany, and the United States took that step after the war. Not until 1944 did women in France gain the right to vote. In the areas of property rights and job opportunities, however, women made more progress.

### ***Arts and entertainment took new forms.***

The arts and entertainment were quick to reflect the changes taking place in technology and society. The development of photography led painters to seek new ways to express themselves on canvas. Leaving reality to the camera, artists experimented with broad brushstrokes and hazy images to create impressions of a scene through the use of light and color. This style of painting became known as **impressionism** (illustrations, page 605). Composers of music also experimented with new forms—thus creating musical impressions and complex harmonies and rhythms.

The turn of the century saw the arts reaching a far wider audience than ever before. This change marked the start of **mass culture**, or culture with great popular appeal. Factors contributing to mass culture included improved literacy rates, inventions such as the phonograph, and an increase in people's leisure that provided time for entertainment. The result was a growing variety of leisure activities. Sports appealed to both players and watchers. The year 1896 saw the revival of the International Olympic Games, held that year in Athens. Most of all, people turned for entertainment to the movies, as the silent films developed in the early 1900's were called. The first feature film, *The Great Train Robbery*, packed theaters on both sides of the Atlantic.

### ***Europe faced rising tensions.***

Politics in Europe changed in a number of ways in the late 1800's. In most countries, all adult men could vote. As political parties grew, they became more tightly organized, with central committees that set party policy. Political leadership also changed as candidates had to appeal to masses of voters.

Political systems differed from one country to another. In France and the United States, the lower house of the national legislature was elected directly by popular vote, but the upper house was not. In Britain, members of the House of Lords were not elected at all.

The government of Germany remained one of the most conservative. Members of the lower house of the national legislature were elected directly, but members of the upper house were appointed by the 25 states. In Britain, the head of the majority party became

## Democratization in Britain, 1884-1912

### Underlying Factors

- 1884** Manhood suffrage
- 1906** Labour party enters Parliament
- 1909** Liberal party introduces People's Budget (worker's insurance program)

### Key Event

- 1909** House of Lords vetoes People's Budget

### Outcomes

- 1911** Lords' power limited: can't veto money bills, can only delay other bills.
- Power of Commons increases.
- Workers gain health and unemployment insurance.

prime minister, but in Germany the prime minister was chosen by the kaiser and was responsible only to him. Recognizing the need for popular support, Bismarck as prime minister launched a program of **social insurance** that included accident insurance and old-age pensions for workers. In return, Bismarck gained popular support for his nationalist policies.

Britain in the late 1800's had two main political parties, the Liberals and the Conservatives. On questions of imperialism and reform, the two parties were similar. They differed, however, on several important issues. One of these was the question of **home rule**, or self-government, for Ireland. Although finally approved in 1914, home rule was delayed by the outbreak of war. Another issue that divided Liberals and Conservatives was the role of the House of Lords. Previously a bill required the approval of both houses in order to become law. When the House of Lords sought to prevent the passage of a particular budget bill, it set off a crisis over its own power.

The Industrial Revolution had brought great wealth to Europe, but much of that wealth belonged to the small upper class. Although the middle class was growing steadily, the urban lower class and many peasants still lived in poverty. In time, many workers began to use strikes and protests to gain higher wages and better living conditions. Small groups of radicals still clung to the idea of revolution.

The major threat to European peace and stability proved to be nationalism. The greatest conflicts occurred in Central Europe, where minority groups within the Austro-Hungarian, Ottoman, and Russian empires sought independence. Often they faced persecution. In the Ottoman empire, thousands of Bulgarians and a million Armenians were massacred. Jews in Russia faced **pogroms**—mob attacks that destroyed homes, businesses, and lives.

In western Europe, France remained bitter over its loss of Alsace and Lorraine and its defeat by Germany in 1870. The rise of Germany had upset the old European balance of power and led to new tensions that could erupt in crises. Nonetheless, the long era of general peace since 1815 created the illusion that major wars would no longer occur.

## Chapter Review

**Define** interchangeable parts, assembly line, impressionism, mass culture, social insurance, home rule, pogrom

**Identify** Henry Bessemer, Thomas Edison, Alexander Graham Bell, Henry Ford, Louis Pasteur, Charles Darwin, Marie Curie, Emmeline Pankhurst

### Answer

1. (a) What inventions of the late 1800's and early 1900's brought a new revolution in technology?  
(b) What were their effects on people's ways of living?
2. In what ways did new ideas in science affect people's lives and thinking?
3. How did the role of women in Western society change in the late nineteenth century?
4. What new trends appeared in the arts and entertainment?

### Critical Thinking

5. Why was nationalism a threat to peace in Europe?

## Connecting Past and Present

The period between 1865 and 1914 brought a revolution in people's ways of living. Lighting, telephones, radios, phonographs, and movies all grew out of the development of electricity as a new source of energy.

Today, a similar revolution has occurred in ways of living. Television, tape recorders, CD's, video games, and computers are only a few of the innovations that have brought new kinds of entertainment, communication, and lifestyles. These inventions have become possible through developments in electronics, an outgrowth of electricity that uses electric signals to operate equipment. New electronic uses are constantly being discovered that will affect the ways you live and work in the years ahead.



## Unit VII Review: Linking Historical Themes

The Industrial Revolution, which began in Britain in the 1700's, changed forever the ways that people lived, worked, and thought. By helping Europe dominate other areas of the world, the Industrial Revolution also had worldwide consequences.

### Technology

In the 1700's, inventions such as the spinning jenny, power loom, and steam engine created a revolution in manufacturing and transportation. New cities sprang up as centers for manufacturing. Railroads quickly became a network providing the resources and markets on which the cities depended.

In the late 1800's, a second phase of the Industrial Revolution began. This stage was based on steel, electricity, and the gasoline engine. The age of the skyscraper, light bulb, telephone, and radio had begun. These inventions were joined in the early 1900's by the airplane and the automobile assembly line.

### Economics

The Industrial Revolution, by making possible the mass production of goods, increased the demand both for resources to make these products and for markets in which to sell them. Trade provided an answer to both needs, and advances in transportation and communication made trade easier. The huge expansion of trade made it possible for the first time to speak of a global economy. Leading this economy, profiting the most from it, were the industrialized nations with their modern technology.

### Society

With the rise of industry, millions of people moved to the rapidly expanding cities. There they found factory jobs, but the work was long and dangerous, the pay was low, and living conditions were often miserable. On the plus side, in time there arose a new middle class made up of professionals and skilled workers. Many workers also joined unions to increase their bargaining power with factory owners.

Women too sought strength in numbers. Taking advantage of the new opportunities offered by the rise of industry, many began working outside the

home. Yet women objected to the unequal treatment they received, as well as to their lack of political rights. Some women began organizing to demand the right to vote.

### Politics

Nationalism was a powerful political force during this period. In Italy and Germany it led to national unification. In the United States, it was used to justify westward expansion. Nationalism also encouraged imperialism, as major European nations, eager to demonstrate their power, took control of large areas in Asia and Africa. Yet in Latin America, another area under European control, local nationalist movements overthrew European control. While these conflicts were occurring outside Europe, the 1800's was largely a time of peace within Europe.

### Culture

The quickening pace of life in industrial Europe produced rapid cultural change. In the art world, romanticism gave way to realism, which in turn gave way to impressionism. Workers gained more leisure time and spent it enjoying such entertainments as sports and movies. As public education improved, more people learned how to read, and information spread more widely through books and newspapers. One idea that spread across Europe was socialism, which called for community rather than private ownership of property. Karl Marx's brand of socialism, known as communism, predicted the overthrow of capitalism and the creation of a society without social classes or private property. However, most of Marx's predictions turned out to be wrong.

### Analyzing Historical Themes

1. It has been said that nationalism in the 1800's was a double-edged sword, with both positive and negative effects. (a) What were its positive effects? (b) What were its negative effects?
2. What were the main causes of economic growth in the 1800's?
3. How did industrial growth help lead to European imperialism?